Hanford Permit Modification Proposed to Support Low-Activity Waste Pretreatment System (LAWPS)

The U.S. Department of Energy (DOE) Office of River Protection (ORP) and Washington River Protection Solutions (WRPS) are holding a 60-day public comment period on a proposed modification to the Hanford Facility Dangerous Waste Permit to incorporate the Low-Activity Waste Pretreatment System (LAWPS) Facility as a new Operating Unit Group. This proposed modification is required for construction and operation of the LAWPS Facility in support of the Direct Feed Low-Activity Waste (DFLAW) Program.

July 2017

US Department of Energy – Office of River Protection

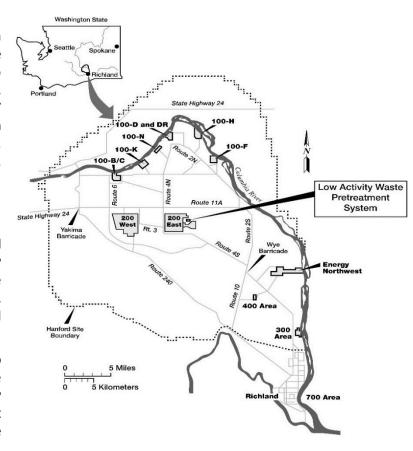
Background

The Hanford Site is located in southeastern Washington State along the Columbia River. The 580-square-mile site was created in 1943 as part of the Manhattan Project to produce plutonium for the nation's defense program. Hanford's legacy defense waste is stored in 177 underground tanks containing approximately 56 million gallons of high-level radioactive and dangerous waste. Most of the tanks are beyond their engineered design life, and some have leaked in the past.

Direct Feed Low-Activity Waste (DFLAW)

To begin treating tank waste before completion of the full Waste Treatment and Immobilization Plant (WTP), ORP developed a plan to begin feeding low-activity waste directly to the WTP Low-Activity Waste (LAW) Facility, allowing treatment to begin as early as 2022. This is called the DFLAW process.

One of the advantages of DFLAW is that it allows ORP to begin treating a significant portion of the tank waste supernate (liquid portion of the waste) using the WTP facilities closest to completion while technical issues at the WTP Pretreatment and High-Level Waste facilities are resolved.



Most of the WTP facilities required to process waste in the DFLAW configuration are complete or nearly complete. However, execution of the DFLAW mission requires DOE-ORP and WRPS to construct the Low-Activity Waste Pretreatment System (LAWPS) facility.



Public Comment Period

We welcome your feedback on this proposed modification to permit construction and operation of the LAWPS facility. The public comment period runs from **July 17 through-September 15**, October 30, 2017.

A public meeting is scheduled for **Monday, August 21 at 5:30 p.m.,** at the Richland Public Library, 955 Northgate Drive, Richland, WA. The meeting will also be accessible via webinar. To register, go to https://attendee.gotowebinar.com/register/910784138266585602 (Webinar ID: 361-571-939).

Low-Activity Waste Pretreatment System

The location of the LAWPS facility will be in the 200 East Area of the Hanford Site. The LAWPS facility will provide pretreated waste feed to the WTP LAW facility prior to the remainder of the WTP treatment facilities coming online. Treatment will consist of solids filtration and radioactive cesium removal by ion exchange.

Permit Modification Scope

The Permittees are requesting a Class 3 modification to the Hanford Facility RCRA Permit to add the LAWPS as a new Operating Unit Group (OUG-1) in Part III of the Permit. This modification is seeking approval from the Washington State Department of Ecology (Ecology) to allow construction and operation of the LAWPS facility needed to support the DFLAW configuration for treatment of Hanford tank waste.

Primary elements of the application include the following:

- Seismic and traffic evaluations
- Part A Form
- Waste Analysis Plan
- Process Information
- Security Requirements
- Preparedness and Prevention
- Personnel Training
- Closure Plan
- Inspection Plan
- Contingency Plan
- Supporting design media (specifications, calculations, reports, and engineering drawings).

An Independent Qualified Registered Professional Engineering (IQRPE) design assessment report is under development to provide an independent technical evaluation of the LAWPS tank system design, including corrosion control measures associated with the underground transfer pipelines. The completed report will be submitted to Ecology at a later date.

For additional information on the permit modification, contact Dieter Bohrmann, ORP, at Dieter G Bohrmann@orp.doe.gov.

Public Review Process

A 60-day public comment period will run from **July 17 through September 15, October 30, 2017**. A public meeting is scheduled for **August 21 at 5:30 p.m. at the Richland Public Library** (955 Northgate Drive). At the conclusion of the comment period, Ecology will address public comments before making a decision to approve or deny the requested modifications. This will include a second public review opportunity (45 days), as required for Class 3 modifications. If the modification is approved, changes to the Hanford Facility RCRA Permit will be finalized, and the new LAWPS portion will be issued by Ecology.

Hanford Public Information Repositories

Copies of the proposed modification and supporting documentation will be available during the public comment period at http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0069263H or www.ecy.wa.gov/programs/nwp/commentperiods.htm. Copies may also be viewed at the Hanford Public Information Repositories listed below. More information is available on the Hanford Events Calendar at http://www.hanford.gov/pageAction.cfm/calendar?&IndEventID=8378.

Portland State University Government Information Branford Price Millar Library 1875 SW Park Avenue Portland, OR 97207-1151 Attn: Bertrand Robinson (503) 725-4128 University of Washington Suzzallo Library Government Publications Dept. Box 352900 Seattle, WA 98195-2900 Attn: Emily Keller

(206) 543-5597

U.S. Department of Energy Public Reading Room Washington State University, Tri- Cities Consolidated Information Ctr., Rm. 101-L 2770 Crimson Way Richland, WA 99352 Attn: Janice Parthree

Gonzaga University Foley Center Library East 502 Boone Avenue Spokane, WA Attn: John Spencer (509) 313-6110 Ecology Nuclear Waste Program Resource Center 3100 Port of Benton Blvd. Richland, WA 93354 Attn: Teresa Booth 509-372-7899

Administrative Record and Public Information Repository

(509) 372-7443

Address: 2440 Stevens Center PI, Rm 1101, Richland, WA 99352 Attn: Heather Childers

Phone: (509) 376-2530 Website: www2.hanford.gov/arpir/

The Permittees' compliance history during the life of the Hanford Facility RCRA Permit being modified is available from the Washington State Department of Ecology. Contact Mandy Jones at (509) 372-7950.

Comment Submission

Please submit comments on the proposed Class 3 Permit modification by September 15, October 30, 2017. Comments may be submitted via Ecology's online <u>eComment form</u> (preferred) at the following web address: http://wt.ecology.commentinput.com/?id=5M3Zb.

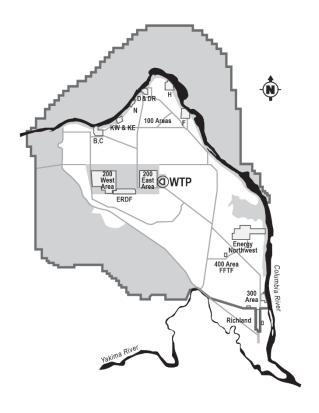
Or by U.S. mail or hand-delivery to:

Mandy Jones Washington State Department of Ecology 3100 Port of Benton Boulevard Richland, WA 99354

Hanford Public Involvement Opportunity

We want to hear from you on the proposed modifications to the Hanford Dangerous Waste Permit to add the LAWPS Facility!

Comment Period: July 17 to September 15, October 30, 2017 Public Meeting: 5:30 pm, August 21 – Richland Public Library



US Department of Energy Office of River Protection PO Box 450, MS H4-02 Richland, WA 99352

Class 3 Permit Modification Fact Sheet

